Patent Claims

1. Isothiazolecarboxamides of the formula

in which

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R represents a radical of the formula

$$CI$$
 CH_3
 CH

R¹ represents cyano, phenyl or cycloalkyl having 3 to 7 carbon atoms,

or

R represents a radical of the formula
$$\mathbb{R}^2$$
 in which

cycloalkyl having 3 to 7 carbon atoms or represents -CH2-S-R³, where

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 R^3 represents alkyl having 1 to 6 carbon atoms or represents phenyl which is optionally substituted by halogen and/or alkyl having 1 to 6 carbon atoms,

or

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R represents a radical of the formula -CH₂

> R⁴ represents hydrogen or N,N-dialkylaminomethyl having 1 to 4 carbon atoms in each alkyl moiety,

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or

R⁵

represents a radical of the formula -CH₂-CH₂ R

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represents hydrogen or alkoxy having 1 to 4 carbon atoms and R6

represents alkoxy having 1 to 4 carbon atoms, alkyl having 1 to 6 carbon atoms, optionally halogen-substituted phenyl or represents optionally halogen-substituted phenoxy,

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or

 R^5 represents optionally halogen-substituted phenoxy and R⁶ represents hydrogen,

or

5 R represents a radical of the formula

$$-CH \stackrel{\mathsf{COOR}^7}{\mathsf{CH(CH_3)_2}}$$
 , $-CH_2 - N \stackrel{\mathsf{R}^8}{\mathrel{\mathsf{CHO}}}$ or

-CH₂-CH₂-O-R⁹ in which

R⁷ represents alkyl having 1 to 4 carbon atoms,

R8 represents alkyl having 1 to 4 carbon atoms, and

R⁹ represents hydrogen or a radical of the formula

or

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R represents a radical of the formula $-CH - CH_3$ in which

20 R¹⁰ represents halogen, alkyl having 1 to 4 carbon atoms or alkoxy having 1 to 4 carbon atoms and

n represents integers from 0 to 3.

- 2. Process for preparing isothiazolecarboxamides of the formula (I) according to Claim 1, characterized in that
 - a) 3,4-dichloro-isothiazole-5-carbonyl chloride of the formula

is reacted with amines of the formula

 H_2N-R (III)

in which

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R is as defined above,

if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent,

or

b) 3,4-dichloro-isothiazole-5-carboxamide of the formula

$$\begin{array}{c|c}
CI & CI \\
N & C-NH_2 \\
O & O
\end{array}$$
(IV)

25 is reacted with hydroxyl compounds of the formula

$$HO-CH_2-X$$
 (V)

in which

5 X represents a radical of the formula

$$R^{4}$$
 , $-CH_{2}$ R^{6} or $-N$ R^{8} in which

R⁴, R⁵, R⁶ and R⁸ are each as defined above,

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in the presence of a diluent and in the presence of a dehydrating agent.

- 3. Composition for protecting plants against attack by undesirable microorganisms and animal pests, characterized in that it contains at least one isothiazolecarboxamide of the formula (I) according to Claim 1, in addition to extenders and/or surfactants.
- Use of isothiazolecarboxamides of the formula (I) according to Claim 1 for protecting plants against attack by undesirable micoorganisms and animal pests.
 - 5. Method for protecting plants against attack by undesirable microorganisms and animal pests, characterized in that isothiazolecarboxamides of the formula (I) according to Claim 1 are applied to the plants and/or their habitat.

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6. Process for preparing compositions for protecting plants against attack by undesirable microorganisms and animal pests, characterized in that isothiazolecarboxamides of the formula (I) according to Claim 1 are mixed with extenders and/or surfactants.

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7. Isothiazolecarboxamide according to Claim 1, characterized by the formula

8. Isothiazolecarboxamide according to Claim 1, characterized by the formula

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9. Isothiazolecarboxamide according to Claim 1, characterized by the formula

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10. Isothiazolecarboxamide according to Claim 1, characterized by the formula